

IN THE CLAIMS

1-4 (Canceled) .

5. (Currently Amended) A reactor cooling system, which comprises:

a reactor containment for containing a reactor pressure vessel;

a lower drywell which is a space for containing a bottom side portion of said reactor pressure vessel, ~~said lower drywell being disposed in a lower portion of said reactor pressure vessel~~ being disposed in said lower drywell;

reactor recirculation pumps for circulating cooling water in said reactor pressure vessel, each of said reactor recirculation pumps being disposed in the bottom side portion of said reactor pressure vessel in such a manner that ~~a side of a motor portion of~~ each of said reactor recirculation pumps is projected into said lower drywell;

a lower shroud for containing fuel rods therein, said lower shroud being disposed inside said reactor pressure vessel; and

an upper shroud mounted on said lower shroud, said upper shroud having an outer diameter larger than an outer diameter of said lower shroud, wherein

~~a runner of each runners~~ of said reactor recirculation pumps, each driven by said motor portion ~~isare~~ are disposed in an inner bottom portion of said reactor pressure vessel and between an inner periphery of said reactor pressure vessel and an outer periphery of said lower shroud, and ~~a through-cutout~~ through-cutouts capable of passing ~~the runner~~ said runners therethrough respectively ~~isare~~ are formed corresponding to ~~each~~ of said runners, respectively, at ~~a position just above said runner~~ such positions right above said runners in an outer peripheral side of said upper shroud that all said runners align vertically with all said through-cutouts at the same time, respectively.

6. (Original) A reactor cooling system according to claim 5, wherein said lower shroud comprises a cylindrical body portion, said upper shroud comprising a cylindrical body portion, said body portion of said upper shroud being formed so as to have a diameter larger than a diameter of said body

portion of said lower shroud, said through-cutouts being formed in a periphery of said body portion of said upper shroud.

7. (Original) A reactor cooling system according to claim 5, wherein said lower shroud comprises a cylindrical body portion, said upper shroud comprising a cylindrical body portion, said body portion of said upper shroud being formed so as to have a diameter larger than a diameter of said body portion of said lower shroud, a grid plate being disposed in a lower side portion of said body portion of said upper shroud, an upper shroud fringe portion being disposed in an upper side portion of said shroud, said through-cutouts being formed in said body portion of said upper shroud and said grid plate and said upper shroud fringe portion.

8. (Currently Amended) A reactor cooling system according to claim 5, ~~which comprises~~ further comprising:

heat exchangers through which the cooling water circulated by said reactor recirculation pumps flows, said heat exchangers being disposed in said lower drywell; and

even number of said reactor recirculation pumps, said reactor recirculation pumps being arranged with nearly equal angular spacing, and respective two of said recirculation pumps being fluidly connected to each one of said heat exchangers, wherein

each of said heat exchangers is used for two of said reactor recirculation pumps.

9. (Currently Amended) A reactor cooling system according to claim 5, further comprising a single-train power supply system for driving said reactor recirculation pumps, wherein input power to power supplies for driving said reactor recirculation pumps is supplied from ~~a~~said-single-train power supply system.

10. (Currently Amended) A reactor cooling system according to claim 5, further comprising reactor recirculation pump control units and a power supply system for said reactor recirculation pump control units constructed so that wherein when at least one of said reactor recirculation pumps stops

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during normal operation, all the other of said reactor
recirculation pumps are stopped.